Before the
Federal Communications Commission
Washington, D.C. 20554

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In the Matter of	)	WC DOCKET NO. 03-211
	)	
VONAGE HOLDINGS CORPORATION	)	
PETITION FOR DECLARATORY RULING		

COMMENTS OF
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I. Introduction and Summary

On September 22, 2003, Vonage Holdings Corporation (Vonage) filed a petition requesting that the Commission preempt an order of the Minnesota Public Utilities Commission (MPUC) requiring Vonage to comply with state laws governing providers of telephone service, even though Vonage is a provider of information services (and not a telecommunications carrier or common carrier subject to Title II of the Communications Act of 1934).1 Vonage asks that the Federal Communications Commission (FCC or Commission) find that certain specific E911 requirements imposed by the Minnesota Commission are in conflict with federal policies.2 In the alternative, Vonage argues that the Commission can grant the Petition without determining whether Vonage's service constitutes an information service, because the nature of the Internet

1 *In the Matter of Vonage Holdings Corp. Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission,* WC Docket No. 03-211 at 1 (filed Sept. 22, 2003) (Petition).

2 Id.

makes it impossible to separate this service (regardless of its regulatory classification) into distinct interstate and intrastate components.3 As discussed below, prior to the due date for the filing of these comments, the United States District Court for the District of Minnesota (District Court) granted a permanent injunction preventing enforcement of the MPUC's order that is the subject of the Vonage Petition.

Although Level 3 Communications (Level 3) supports the substance of the Vonage Petition, assuming that the Minnesota Injunction is not lifted, it will no longer be necessary for the Commission to preempt the MPUCs application of state law. The Commission must recognize, however, that the MPUC decision is unlawful and that the issues raised by the Vonage Petition are not unique to Minnesota and by no means have been resolved on a national level. In fact, many other states have begun an examination of various VoIP services creating a salmagundi of confusing and inconsistent regulatory regimes.4

Level 3 agrees with Vonage, and now with the District Court, that Vonage's VoIP service is properly classified as an information service. As such, the service is not subject to the full panoply of common carrier regulations. States cannot require Vonage or any other provider of information services to obtain a certificate in order to provide services within the state.

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3 Id. at iv.

4 *See e.g., Public Utilities Commission of Ohio (PUCO), In the Matter of the Commission's Investigation Into Voice Services Using Internet Protocol*, Case No. 03-950-TP-COI; North Carolina Utilities Commission (NCUC), *In the Matter of Application of Time Warner Cable Information Services for a Certificate of Public Convenience and Necessity to Offer Long Distance Telecommunications Service By A Reseller; In the Matter of Application of Time Warner Cable Information Services for a Certificate of Public Convenience and Necessity to Provide Competing Local Exchange and Exchange Access Services in the State of North Carolina*, Docket No. P-1262; Colorado Public Utilities Commission (CoPUC), *In the Matter of the Investigation into Voice Over Internet Protocol (VOIP) Services,* Docket No. C03-0559; Docket No. 03M-220T; New York Public Service Commission (NYPSC*), Ordinary Tariff Filing of Frontier Telephone of Rochester, Inc. to Add a Rate and Descriptive Language of a New Rate Element Called GGA-ONP Line Side Transport*, Case 03-C-0965; Florida Public Service Commission (FPSC), *Petition for arbitration of unresolved issues resulting from negotiations with Sprint-Florida, Incorporated for interconnection agreement, by AT&T Communications of the Southern States, LLC d/b/a AT&T and TCG South Florida*, Docket No. 030296-TP.

Moreover, consistent with previous FCC orders regarding the role of information service providers, Level 3 agrees that to the extent a Vonage user seeks to communicate with a user of the public switched telephone network (PSTN), Vonage is a user, not a provider, of telecommunication services.5

Level 3 believes that consumers of communications services are served best by markets that facilitate the efficient provision of safe and reliable services at fair prices and encourages the Commission to maintain sight of the ultimate goal of the 1996 Act – to remove regulatory barriers to competition. If not burdened by undue regulation, VoIP technologies will continue to develop innovative and economically efficient applications for customers. The Commission should grant the Vonage Petition and simultaneously commence a rulemaking to address the myriad of issues that have been raised in a number of state VoIP proceedings. It is essential that the Commission establish a unified federal regime that will enable VoIP providers to deploy their services on a nationwide basis. A guiding principle of this federal regime should be the recognition of the distinction between VoIP applications and the transmission services used to deliver these applications. The Commission should avoid taking action that would force VoIP applications into existing telecommunications regulatory service models. If the FCC determines through this rulemaking that regulation is necessary to achieve specific public policy goals, Level 3 urges the Commission to apply only those regulations necessary to meet the specific goal rather than blanket VoIP services with inappropriate Title II regulation.

A. Level 3 Communications

Level 3 is a facilities-based communications and information services company with an international network completely optimized, end-to-end, for IP technology. Level 3 offers IP-

5 *Vonage Holdings Corp. v. Minnesota Public Utilities Comm'n*, Memorandum and Order, No. 03-5287 (D.

based services, including voice, broadband transport, submarine transmission, and softswitch-based telecommunications services.

Level 3's all-IP network contains no circuit switches. Instead, its network is designed with softswitch architecture – a distributed set of hardware and software platforms used to seamlessly interconnect IP networks to the circuit switched network. With softswitch architecture, core switching functions are not handled in each single unit, such as in a circuit switch network. Instead, switching functions are more efficiently distributed throughout the network to handle traffic in multiple locations. The result is a pure IP network that interoperates with the existing circuit-switched public network.

B. Findings of Federal District Court for Minnesota

On October 16, 2003, the District Court issued an order permanently enjoining the MPUC from imposing common carrier regulation on Vonage's VoIP service. Acknowledging the attractiveness of the MPUC's simple analysis that if it "quacks like a duck" it must be a duck, the District Court correctly concludes that this rush to judgment "simplifies the issue to the detriment of an accurate understanding of this complex question."6 After a thorough examination of the technical attributes of the service, the District Court concludes that what Vonage provides is the enhanced functionality on top of the underlying network7 – or in other words, Vonage uses a telecommunications service to provide its application, VoIP.

Based on the conclusion that Vonage is an information service provider, the Court examines federal law and legislative intent to find that information services such as those provided by Vonage must not be regulated by state law. The District Court infers the intent of

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Minn. Oct. 16, 2003) at 12 (Minnesota Injunction).

6 Minnesota Injunction at 17.

Congress to preempt the MPUC application of state law in two ways. First, the Court infers Congress's intent to preempt state regulation of information services because the state law regulating VoIP services conflicts with federal law. This is known as "conflict preemption." The Court finds that state regulation over VoIP services is not permissible because "Congress expressed an intent that services like Vonage's must remain unregulated by the Communications Act…" 8 Second, the Court determines that Congress has legislated comprehensively so as to occupy the entire field of regulation of information services. In this instance of "field preemption," there is no room for a state to supplement federal law.9

II. What is Voice Over Internet Protocol?

The term VoIP comprises a number of different applications and service combinations. Thus, in order for the Commission to determine what the appropriate regulatory scheme is for the transmission services used to deliver the application, the Commission must examine each specific VoIP application to determine how it compares to conventional telephony. It would be both incorrect and overreaching to find that all VoIP services – even those that may utilize a phone-to-phone connection in some respect – are a substitute for basic local exchange services, and that they therefore necessarily should be subject to the same regulatory framework as traditional telephone services.

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7 Id.

8 Id.

9 Minnesota Injunction at 19, citing *Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. at 368, 106 S.Ct. at 1898.

The range of available VoIP applications is increasingly broad, and more services are under development. Because there is no standard VoIP product, one must examine the features and characteristics of each service, and if applicable, the arrangements the VoIP provider has made with PSTN carriers. In general, however, Level 3 believes that the way in which many VoIP products are provided today would require no more use of carrier networks than would be involved in the exchange of any local telephone call on the PSTN. Specifically, VoIP traffic is exchanged on the PSTN through the VoIP provider's use of local telephone lines (e.g., primary rate interfaces ("PRIs") or direct inward dials ("DIDs")) or local interconnection trunks.

VoIP uses the Internet protocol to transmit voice as packetized data over IP networks in real time. Typically, a packetized media stream traversing an IP network that is interconnected for termination on the public switched network (PSTN) goes through the following steps. First, the media stream is originated by an IP phone or by a piece of customer premises equipment (computer or IP conversion device) and delivered to the caller's VoIP provider. This can occur on any IP-network, whether wireline or wireless, cable or DSL. The IP network determines whether the media stream will terminate on- or off-net, which can include the PSTN. If the media stream terminates on another IP device not on the PSTN it is delivered to that device. If the media stream must be terminated to the PSTN it is delivered from the originating local exchange carrier to the IP network via IP media and signaling gateways. Generally, the gateway converts the call from Time Division Multiplexing (TDM) format to an IP-based format. Next, the media stream is delivered via the IP network to the terminating media gateway nearest to the destination. The media stream is then converted from IP to a format accepted by the terminating carrier (such as TDM), at which point the communication is terminated. A packetized call may also originate in the PSTN and terminate on an IP end point.

In contrast to plain old telephone service, voice service provided on an IP network is not a "pure transmission" service;10 it is an application or media stream that runs on the IP network, just as e-mail, streaming audio, streaming video and web browsing are applications that run on the IP network. Because it is data provided in IP form, VoIP applications can be combined with other IP-based applications. Thus, VoIP can incorporate features that permit customer interaction with stored data, use of computer processing, or have the "capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing or making available information."11 Examples of applications combining transmission with stored data or use of computer processing include playing announcements and tones, performing speech recognition, presence monitoring, click access, VIP list creation, unified messaging, conferencing, number translation, find-me, barring, and forwarding services. IP technology blurs traditional distinctions between local and long-distance by making geographic end-points irrelevant.

III. Current State of the Law Regarding VoIP

A. Federal Law

10 See *Second Computer Inquiry*, Final Decision, 77 FCC 2d 384, 420, para. 96 (1980); modified on recon. 84 F.C.C.2d 50 (1980); further modified on recon. 88 FCC 2d 512 (1981); aff'd. sub nom. Computer and Communications Industries Ass'n v. FCC, 693 F.2d 198 (D.C. Cir. 1982), cert. denied 461 U.S. 938 (1983) (Computer II).

11 47 U.S.C. § 153(20) (defining "information service").

Although VoIP services are in a nascent stage of development, the unregulated status of these services may be traced back more than 20 years to the FCC's basic and enhanced regulatory decisions in the *Computer Proceedings* in which the FCC decided to allow enhanced services to flourish unregulated and unfettered by Title II of the Communications Act of 1934, as amended (Act). Since the 1996 Act, the FCC's basic and enhanced regulatory dichotomy has evolved into an analysis of whether a service is a regulated telecommunications service or an unregulated information service. Post-1996 Act, there have been many opportunities for the FCC to begin regulating VoIP services as telecommunications services under the full panoply of Title II regulation, but the FCC has rightly and repeatedly refused to do so.

1. Basic and Enhanced Services Regulatory Scheme Pre-1996 Act

The FCC established the distinction between "basic services" and "enhanced services" in the Second Computer Inquiry in 1980 (*Computer II*).12 There, the FCC defined "basic services" as "the common carrier offering of transmission capacity for the movement of information."13 In general, a basic service transmits information generated by a customer from one point to another, without changing the content of the transmission. Thus, the "basic" service category was intended to define the transparent transmission capacity that makes up conventional communications service. In *Computer II*, the FCC indicated that because "basic" services are "wholly traditional common carrier activities," they are regulated under Title II.14

By contrast, in *Computer II*, the FCC defined unregulated "enhanced services" as:

> services, offered over common carrier transmission facilities used in interstate communications, which [1] employ computer

12 Computer II, 77 FCC 2d at 420.

13 Id.

14 Id. at 435.

> processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; [2] provide the subscriber additional, different or restructured information; or [3] involve subscriber interaction with stored information.15

The FCC concluded in *Computer II* that regulation of enhanced services is unwarranted because the market for those services is competitive and consumers benefit from that competition.16 The FCC reached this conclusion notwithstanding the close relationship between communications and some services it classified as enhanced:

> We acknowledge, of course, the existence of a communications component. And we recognize that *some enhanced services may do some of the same things that regulated communications services did in the past*. On the other side, however, is the substantial data processing component in all these services.17

Prior to the enactment of the 1996 Act, the FCC retained and reaffirmed its existing basic/enhanced distinction in subsequent *Computer Proceedings*.18 In determining whether a service is enhanced, the FCC has traditionally applied each clause of the definition against the specific functionalities of the service.19 The service is deemed "enhanced" if it meets the language of one of the three clauses, as interpreted by the FCC.

2. Telecommunications Service and Information Service Definitions in the 1996 Act

15 Id. at 387; see also 47 C.F.R. § 64.702(a).

16 Id. at 433.

17 Id. at 435 (emphasis added).

18 See *Third Computer Inquiry, Phase II*, Memorandum Opinion and Order on Reconsideration, 3 FCC Rcd. 1150 (1988) (Computer III).

19 *See, e.g.*, *U S West Communications, Inc. Petition for Computer III Waiver*, Order, 11 FCC Rcd. 1195 (1995); *AT & T 900 Dial-It Services and Third Party Billing and Collection Services*, Memorandum Opinion and Order, 4 FCC Rcd. 3429 (1989).

The 1996 Act codified the FCC's past decisions regarding the basic/enhanced regulatory dichotomy by creating new regulatory categories designated as "telecommunications service" and "information service," which are fundamentally the equivalent of the FCC's prior categories of basic and enhanced services, respectively.

Specifically, the 1996 Act defines "telecommunications service" as "the offering of telecommunications for a fee directly to the public or to such classes of users as to be effectively available directly to the public regardless of the facilities used."20 The term "telecommunications" is defined as "transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."21

The definitions of "telecommunications" and "telecommunications service" can be contrasted with "information service," which is defined by the 1996 Act as:

> the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.22

The FCC's first opportunity to consider the relationship between its traditional basic/enhanced dichotomy and the telecommunications/information service dichotomy occurred in the context of establishing safeguards for Regional Bell Operating Company ("RBOC") provision of interLATA services. In the *Non-Accounting Safeguards Order*, the FCC concluded that those protocol processing services that qualify as "enhanced" should be treated as

20 47 U.S.C. § 153(46).

21 47 U.S.C. § 153(43).

22 47 U.S.C. § 153(20).

"information services" under the 1996 Act because they satisfy the statutory requirements of offering "a capability for ... transforming [and] processing ... information via telecommunications."23 The FCC indicated in the *Non-Accounting Safeguards Order* that services that result in no net protocol conversion to the end user may continue to be classified as basic regulated services.24

3. Universal Service Report to Congress

In its 1998 Report to Congress on Universal Service (*Universal Service Report*) the FCC once again confirmed the parallel relationship between the basic/enhanced regulatory dichotomy and the telecommunications/information services definitions included in the 1996 Act.25 The FCC concluded that the categories of "telecommunications service" and "information service" contained in the 1996 Act are mutually exclusive and parallel the *Computer II* definitions of "basic service" and "enhanced service." In this fashion, the FCC decided that Congress intended to maintain a regime in which information service providers are not subject to regulation as common carriers merely because they provide their service "via telecommunications."26

Beyond these definitional considerations, the *Report to Congress* presented the FCC with its first opportunity to begin regulating VoIP services as telecommunications services under Title II, but the FCC explicitly refused to do so – even in the case of VoIP service that might happen to utilize telephones on the originating and terminating ends. The FCC's refusal to regulate

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23 *Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, As Amended*, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd. 21905, 21955-58, ¶¶ 104-7 (1996) (Non-Accounting Safeguards Order).

24 Id. at ¶ 106.

25 *Federal-State Joint Board on Universal Service, Report to Congress*, 13 FCC Rcd. 11501 (1998) (Universal Service Report).

26 Id. at ¶ 39.

VoIP services in the *Report to Congress* is particularly noteworthy considering that concerns about the unregulated status of VoIP and other Internet services were some of the driving forces behind the Congressional mandate for the FCC to issue the *Report*. At the time, the senators who pushed for the *Report to Congress* to be issued strongly urged the Commission to find that VoIP and other Internet services should be regulated as telecommunications services.27

Instead, in the *Report to Congress*, the FCC considered the existing technology for different types of VoIP services and tentatively decided that for "computer-to-computer" VoIP services, ISPs likely would not be providing regulated "telecommunications" to subscribers.28 In contrast, for "phone-to-phone" VoIP services, the FCC tentatively determined that certain classes of such services appear to lack the characteristics that would render them unregulated "information services." Characteristics of these "phone-to-phone" VoIP services include:

- the provider holds itself out as providing voice telephony;
- the provider does not require the customer to use different customer premises equipment ("CPE");
- the customer may call telephone numbers assigned in accordance with the North American Numbering Plan; and
- the provider transmits customer information without any net change in form or content.29

Importantly, the FCC refused to make any definitive regulatory determinations concerning any class of VoIP services in its *Report to Congress*, at least until a better record could be established that took into account the application of the enhanced service criteria to individual VoIP service offerings such as these and the broad policy issues involved.30 In coming to this decision, the Commission recognized that regulatory distinctions based on

27 Id. at ¶¶ 34-36, 49, 51, 78, 85.

28 Id. at ¶ 87.

29 Id. at ¶ 88.

30 Id. at ¶ 90.

technological differences in VoIP services being offered at that time could quickly be "overcome by changes in technology."31 Furthermore, the FCC correctly acknowledged that definitive regulatory classifications for VoIP services were not appropriate at that time due to the "emerging" and "dynamic" nature of the Internet services market.32

B. FCC International VoIP Advocacy Position

In its *Report to Congress*, the FCC specifically recognized the Commission's international advocacy position that IP telephony "serves the public interest by placing significant downward pressure on international settlement rates and consumer prices."33 The Commission stated that alternative calling mechanisms such as VoIP are an "important pro-competitive force in the international telecommunications services market."34

Since the issuance of the *Report to Congress*, the FCC has repeated this position in the international arena through then-Commissioner Ness, who advised the International Telecommunication Union in 2001 of the Commission's position on the deregulation of VoIP services, stating that the *Report*:

> preserved the *unregulated status of IP telephony*, although we noted that we would determine on a case-by-base basis whether certain phone-to-phone IP telephony – as opposed to computer-to-computer IP telephony configurations – may be properly classified as telecommunications services. Our decision to adopt a case-by-

31 Id. As discussed above, there are complications today in even defining what might constitute a phone.

32 Id. In its Report to Congress, the FCC practically invited parties to file petitions seeking a declaration that certain forms of VoIP services were telecommunications services subject to regulation. The first formal petition in response was filed on April 5, 1999. In its petition, U S West, Inc. asked the FCC for a declaratory ruling that it could impose access charges on VoIP service providers. *Petition of U S West, Inc. for Declaratory Ruling Affirming Carrier's Carrier Charges on IP Telephony* (filed Apr. 5, 1999) (U S West Petition). Importantly, the FCC again refused to take the opportunity to regulate VoIP services, and instead never sought public comments on the U S West Petition, or took any other action on it.

33 Id. at ¶ 93 (*citing Rules and Policies on Foreign Participation in the U.S. Telecommunications Market and Market Entry and Regulation of Foreign-Affiliated Entities*, Report and Order and Order on Reconsideration, 12 FCC Rcd. 23891 (1997)).

34 Id.

> case approach, rather than make definitive pronouncements in the absence of a complete record on specific offerings, was prudent due to the nascent state of the technology. As in other instances, the FCC recognized the dynamism of the Internet and the need to consider whether any tentative definition of IP telephony would be quickly overcome by technological changes.35

Any decision by the FCC to regulate VoIP services would constitute a change in the U.S.'s deregulatory policy towards IP telephony services and thus a change in the FCC's international position regarding the proper regulation of VoIP services. In doing so, the U.S. would face a loss of credibility in the international arena, considering its long-standing stance against the regulation of Internet applications, including VoIP.36 Level 3 therefore strongly recommends that the Commission consider the impact that any change in its regulatory policy towards VoIP services could have on the stated goals of reducing settlement rates and prices for international services.

IV. Application of Federal Law to Vonage's VoIP Product

As described above, in the *Report to Congress*,37 the Commission developed three basic models for VoIP, but deferred making definitive pronouncements about the regulatory status of these various forms of IP services: computer-to-computer, computer-to-phone, and phone-to-phone. It is perhaps clearer to rephrase this as packet device to packet device (all IP), packet device to circuit switched device, or vice versa (convergent traffic), and circuit-switched device to circuit-switched device (dial-up gateway service). The packet device could be a computer, customer premise equipment that converts an ordinary phone signal into IP bits before being placed on a data network, or an IP handset.

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35 Remarks of Commissioner Susan Ness (as prepared for delivery), Information Session – WTFP (Mar. 7, 2001) (Commissioner Ness Remarks) (emphasis added).

36 See Universal Service Report, 13 FCC Rcd, 11501, Statement of Commissioner Powell at 4.

The first model, packet device to packet device, describes a call made from one Vonage customer to another. The media stream associated with the communication would not traverse the PSTN but would flow from the Vonage customer over the Internet and terminate at the second Vonage customer. Packet device to circuit-switched device or vice versa implicates a Vonage call to a PSTN customer or a PSTN customer to a Vonage customer. This type of service represents the majority of Vonage calls. Finally, the third model, circuit-switched to circuit-switched, is not a service that the Vonage VoIP application is capable of providing.

Although the District Court methodically applies the four conditions that the FCC set out to determine whether a provider is offering phone-to-phone IP telephony that might be considered a telecommunications service, the MPUC ignored the FCC's test. Showing a lack of understanding of the precedent and the technology involved, the MPUC stated that "[w]ith the Vonage service the customer uses an ordinary touch-tone phone to make calls and carry on conversations."38 The MPUC recognized that the customer must have an ISP and must plug the phone into an MTA router and then into a modem. Despite this recognition, the MPUC found simply that "the consumer is being provided with service that is functionally the same as any other telephone service."

As stated by the District Court, Vonage's services do not meet the second and fourth conditions set out by the FCC.39 First, Vonage customers must use both a modem and an MTA to make a Vonage VoIP call. It cannot be disputed that this equipment is "different from that CPE necessary to place an ordinary touch-tone call." This unique CPE that performs IP protocol

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37 Id. at 11543-44, paras. 87-89.

38 *In the Matter of the Complaint of the Minnesota Department of Commerce Against Vonage Holding Corp. Regarding Lack of Authority to Operate in Minnesota*, Order Finding Jurisdiction and Requiring Compliance, Docket No. P-6214/C-03-108 (Issued Sept. 11, 2003) (MPUC Order).

39 Minnesota Injuction at 13.

conversions is required to utilize the Vonage VoIP service.40 With regard to the fourth condition, Vonage's service is either pure IP, end to end, or undergoes a "net change in form or content" when the call flows from a Vonage customer to a circuit-switched customer, or vice versa. As found by the District Court, Vonage's service is not a telecommunications service pursuant to the four conditions set out by the FCC in the *Report to Congress*.

V. The FCC Must Adopt a Regulatory Regime Consistent with Enhanced Services Nature of VoIP Applications

The time is now for the FCC to step forward and firmly assert its jurisdiction over these next-generation information services to eliminate the void that the states quickly are seeking to fill. Although the state actions are inconsistent with federal law, they are not necessarily misguided. The states are well aware of the need for clarity in the murky new world created by these advanced communications applications. States are examining many issues associated with the provision of VoIP applications such as intercarrier compensation, universal service obligations, access to numbering resources, and of critical importance to the states -- 911 obligations. In order to ensure some uniformity and clearer guidance, the FCC must assert its jurisdiction over the telecommunications services that deliver VoIP applications that communicate with the PSTN and adopt rules that reflect the enhanced nature of the VoIP applications.

The advent of VoIP could play at least two important roles in the market. First, if left free to respond to customer demand and expectations, VoIP applications could become the proverbial "killer application" that stimulates much-anticipated broadband deployment. IP-enabled services allow providers and consumers to combine voice, data, video, and other

40 Vonage Petition at 5.

applications more seamlessly than is possible on PSTN. Forcing one kind of IP-enabled service – voice – into a regulatory category separate from other IP-enabled services will only frustrate this goal and deny consumers the choices they clearly are seeking in a more competitive communications and information services marketplace.

The second important role that VoIP could play is a corrective one. VoIP services may best be viewed as an opportunity to remedy the antiquated inconsistencies and inefficiencies in telephone regulation today. A system that treats the same PSTN network function at least five different ways for jurisdictional and compensation purposes cannot be sustained in a competitive marketplace.41 VoIP challenges outdated regulatory models by treating all packets as packets, whether they are voice, video, data, or something else, and regardless of where they originate and terminate. Rather than trying to squeeze the round pegs of VoIP into the square holes of traditional telephony regulation, the Commission should seize the opportunity to revisit and reform the existing regulatory framework and compensation mechanisms in anticipation of new kinds of services.

Finally, even if it should decide that traditional telephony regulation is warranted in some respect, the Commission should be wary of treating all VoIP services – even all phone-to-phone VoIP services – as a single, easily defined category. As explained further herein, the flexibility

41 In her statement accompanying the FCC's Notice of Proposed Rulemaking regarding a unified intercarrier compensation regime, Commissioner Ness astutely noted that the exact same network function can have multiple prices – and even differing directions of payment – depending upon whether the call is deemed local, long distance, Internet-bound, CMRS or paging in nature. See Developing a Unified Intercarrier Compensation Regime, CC Docket No. 01-92, Notice of Proposed Rulemaking (rel. Apr. 27, 2001), at Separate Statement of Commissioner Ness. Add to this the complexities of intraLATA toll and interLATA toll, and interstate and intrastate splitting of traffic, and it becomes all too clear that Commissioner Ness was on the mark in stating that "[i]n an era of convergence of markets and technologies, this patchwork of regimes no longer makes sense. What had been a historical artifact may have become an unsustainable anomaly." Id. Level 3 submits that the nascent emergence of VoIP is the catalyst that finally makes clear that the historical patchwork of intercarrier compensation regimes has in fact become an unsustainable anomaly.

provided by IP-enabled services makes a "one-size-fits-all" approach to regulation of such services difficult, if not impossible, to administer.

As stated in the introduction of these comments, although the MPUC incorrectly interpreted the law as it applies to VoIP applications, the goals that the MPUC sought to achieve through its faulty legal reasoning – to protect the public interest and safety -- are undeniably important. Given the broad policy implications of any decisions regarding the provision of VoIP, it is imperative that the FCC develop a consistent national policy. This policy must recognize that as an information service, VoIP consists of two separate services, a transmission service and the application delivered using that transmission service. To the extent that the FCC determines that regulation is necessary, the regulation is most logically placed on the provider of the transmission service. The following section briefly details some of the issues that have been raised in the various state proceedings and determinations regarding VoIP. With regard to some, such as intercarrier compensation42 and universal service contributions,43 the FCC has already initiated proceedings that are intended to comprehensively reform the current regulatory scheme. Level 3 will not repeat the comments it has filed in these proceedings. Instead, its encourages the FCC to act expeditiously to resolve the issues raised therein in a manner that is

42 The issue of how VoIP should be treated from an intercarrier compensation perspective is pending before the FCC in a Notice of Proposed Rulemaking. See In the Matter of Developing a Unified Intercarrier Compensation Regime, CC Docket No. 01-92, Notice of Proposed Rulemaking, FCC 01-132 (rel. April 27, 2001) (Intercarrier Compensation NPRM). In this proceeding, the FCC is considering broad reforms to its intercarrier compensation regime, including whether to implement a bill and keep system. Importantly, in this Intercarrier Compensation proceeding, the FCC has made abundantly clear that under the current state of the law, VoIP "is exempt from the access charges that traditional long-distance carriers must pay." Id. at ¶133. The FCC has not issued a final decision in its Intercarrier Compensation proceeding, which has been pending for over two years. Pending completion of this intercarrier compensation rulemaking, the current state of federal law remains that VoIP providers offering "enhanced" or "information" services (i.e., those VoIP services that satisfy the FCC's enhanced services test or the Act's definition of "information service") should not be required to pay access charges.

43 *Federal-State Joint Board on Universal Service, et.al.,* CC Docket No. 96-45, *et. al.*, Further Notice of Proposed Rulemaking and Report and Order, FCC 02-43 (rel. Feb. 26 2002) (USF Contribution FNPRM).

technologically neutral and does not stunt the growth of or stifle innovation in the developing VoIP market.

A. Provision of 911 and E-911 Emergency Access

Working in conjunction with state and local authorities and emergency services organizations to ensure that critical public safety goals are met, Level 3 encourages the Commission to provide a forum to begin addressing immediately the technical and operational issues involved with the provision of 911 in a VoIP environment. The need for far greater Commission oversight and coordination on 911 services does not diminish the need for resolution of other VoIP-related issues such as intercarrier compensation, universal service obligations, access to numbering resources, and interconnection obligations. Instead, the availability of 911 is a discrete technical issue that the Commission can address without predetermining the outcome of other important issues. The VoIP industry and consumers whom the states seek to protect should not be forced to wait for a comprehensive FCC rulemaking on all issue related to VoIP.

In December 2002, the FCC sought comment on various issues related to 911 services for emerging technologies, including VoIP.44 Because that Further Notice of Proposed Rulemaking dealt primarily with other issues, few parties filed comments addressing directly 911 issues related to VoIP. Level 3 urges the FCC to act expeditiously to develop a more comprehensive record on 911 services in a VoIP environment. Guidance from the FCC will enable VoIP

44 *Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems, Amendment of Parts 2 and 25 to Implement the Global Mobile Personal Communications by Satellite (GMPCS) Memorandum of Understanding and Arrangements; Petition of the National Telecommunications and Information Administration to Amend Part 25 of the Commission's Rules to Establish Emissions Limits for Mobile and Portable Earth Stations Operating in the 1610-1660.5 MHz Band*, CC Docket No. 94-102, IB Docket No. 99-67, Further Notice of Proposed Rulemaking, at para. 113 (rel. Dec. 20, 2002).

providers to fulfill the ultimate goal of protecting the public safety while ensuring that the benefits of VoIP are fully realized.

B. Numbering Issues such as Number Assignment and Number Portability

The use of VoIP technology to process voice traffic does not raise any number assignment or number portability issues.45 National bodies such as the North American Numbering Council and the Industry Numbering Committee are considering such issues, and there has been no finding yet that VoIP services have any unique or adverse impact on numbering resources. Carriers who obtain and assign telephone numbers are subject to applicable number assignment and number portability requirements regardless of how they offer service or what additional features may be available to their customers. The availability of new VoIP applications will place no additional strain on number assignment or number portability.

Level 3 notes that carriers are not currently required to provide geographic number portability; should such a requirement eventually be imposed it could actually reduce the need for additional numbering resources. For example, the winter Florida visitor would need only one telephone number that could "follow" him to Florida, and would not have to obtain an additional Florida telephone number. Further, incumbents and competitors alike currently offer foreign exchange ("FX") service without impact on number assignment or local number portability, and a FX-like VoIP service would be no different in that regard. It is always the case today that a telephone number remains associated with the NXX code and rate center from which it is assigned. Even if a customer (including a VoIP provider or its customer) is in a distant location via a FX arrangement, that customer's telephone number would always be associated with the

45 *See* INDUSTRY NUMBERING COMMITTEE (INC), Report on VoIP Numbering Issues, ISSUE #: 393, determining that "there is no basis, under this issue, for changing INC guidelines until such time as regulatory

original rate center for rating and routing purposes – and that number could be ported like any other FX telephone number if and when the customer chose to change service providers.

C. Network Reliability and Service Quality

As noted above, there is a broad range of VoIP applications, with more services under development. Network reliability must therefore be examined on a service-specific basis. Ultimately, VoIP providers will have to offer their customers reliable service in order to gain and retain market share. This question too therefore highlights the need for consideration of VoIP services on a case-by-case basis, taking into account among other things the basic and enhanced aspects of the service offered and the expectations of the consumer. Level 3 understands that its ability to attract and retain business will depend in part upon customers viewing Level 3's VoIP services as "carrier-grade." In other words, the business will rise or fall in part upon the customer's experience in being able to experience seamless transmissions of voice and other data, with minimal, if any, disruptions in service using an IP-based network.

Level 3 understands and shares the concern of regulators over ensuring that customers receive a reliable level of service. However, the imposition of service quality standards on IP-enabled services should be discouraged for at least three reasons.

First, it is premature to examine service quality from a regulatory perspective while this market is still maturing. It remains to be seen whether customers will utilize these VoIP services as a substitute for local service in every respect, and whether VoIP might also deliver benefits that outweigh slight (perhaps even unperceivable) discrepancies in service quality. In addition, consumers may desire tiered levels of service quality depending on the use of the VoIP

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decisions may provide direction or if INC is requested by some outside entity (i.e., NANC) to recommend such changes."

application. For instance, a college student who subscribes to a VoIP service for purposes of keeping in touch with his parents may be interested in purchasing a less expensive service with lower service quality. Businesses, on the other hand, may demand and be willing to pay for the highest level of service quality for communicating with their customers. VoIP providers must not be encumbered with unnecessary regulations that prevent them from meeting the needs of their customers.

Second, Level 3 submits that the application of traditional ILEC service criteria – e.g., deployment of maintenance personnel in X hours, or installation of service within Y days – may be largely inapplicable in a remotely operated IP-based environment that does not rely upon circuit switches and traditional copper loop technology. In fact, many of the PSTN service criteria in place today do not apply squarely to even "traditional" services offered by CLECs over circuit-switched networks. Superimposing traditional ILEC network-based service metrics on the distributed network architecture associated with an IP-based network that offers voice, video, and data capabilities to customers all at once could be unmanageable.

Finally, the public interest would be best served by considering service quality issues on a case-by-case basis if and when customers express concern. Many providers such as Level 3 already are compelled by the competitive market to demonstrate the quality of their services to prospective customers in order to attract their business.46 If complaints from customers regarding VoIP service become prevalent enough, the Commission could at that time consider whether more stringent regulatory protections are required based upon the nature of the service.

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46 For example, Level 3 today offers an IP-based wholesale long-haul voice transport product. In order to attract and retain the business of interexchange carriers, Level 3 tracks a number of service indicators such as Call Success Rate, Network Efficiency Ratio, Latency, Packet Loss, Jitter, and Network Availability. If Level 3's interexchange carrier customers find the service to be of poor quality, those carriers are capable of taking their

Thus, the Commission should refrain from superimposing PSTN-designed metrics on an IP-based service environment. Instead, the Commission should view service quality as something to be driven by customer demand rather than regulatory fiat. In the end, customers will only come to accept and make use of VoIP services if they believe that they can receive an acceptable level of quality.

VI. Conclusion

As identified by the Minnesota District Court, VoIP, as it continues to evolve in the marketplace and outside the traditional telecommunications regulatory structure, is highly dynamic and not capable of easy encapsulation. As such, sweeping regulatory declarations about VoIP services such as those made by the MPUC without a clear understanding of the technology or the law are both dangerous and counterproductive -- which is why the FCC has to date, applied its basic/enhanced distinction on a case-by-case basis, evaluating the specific attributes of a particular service to determine whether it should be subject to traditional regulatory obligations.

Level 3 urges the FCC to immediately assert its jurisdiction over VoIP services to the extent that such services are delivered using the transmission components of the PSTN and preempt state commission regulation of such services. Once asserted, Level 3 encourages the FCC not only to begin a comprehensive rulemaking but also to organize technical workshops to discuss the critical issues before it and reach reasonable, technically achievable solutions. To this end, the FCC should sever out those issues raised by the deployment of VoIP that do not implicate any other issues, e.g. provision of 911 emergency services, and begin or continue with

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business elsewhere. As a result, Level 3 has an unmistakable incentive to make sure that the service is of a high enough quality level to meet and exceed its customers' needs.

the necessary rulemakings to expeditiously provide critical guidance and oversight on these issues.

While the Commission undertakes the monumental task of evaluating the appropriate regulatory structure governing the provision of VoIP applications, it should affirm that it only will apply any traditional telephone regulations that are necessary to the transmission services underlying VoIP applications. Such an affirmation is consistent with the Commission's stated mission and statutory mandate of removing regulatory barriers to competition, will promote a robust communications platform that encourage innovation at the edge, and will ensure that consumers maintain control over their communications experience.

Respectfully Submitted,

S/ [filed electronically]

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